

PERSONAL INFORMATION

SURNAME: PAPANASTASIOU

NAME: EMMANOUIL

DATE OF BIRTH: JANUARY 18, 1968

PLACE OF RESIDENCE: THESSALONIKI

CONTACT: tel: 2310 999251, 2313 303142, e-mail: empapana@auth.gr

CURRENT POSITION(S)

05.2018 - present: Assistant Professor of Medical Physics, Faculty of Health Sciences, School of Medicine, Aristotle Univ. of Thessaloniki, Greece

PREVIOUS POSITION(S)

10.1997 - 05.2018: Medical Physicist, Department of Medical Physics, AHEPA Univ. Hospital, Thessaloniki, Greece

EDUCATION

10.1985 - 03.1990: BSc in Physics (Grade: 7.11), Faculty of Sciences, Department of Physics, Aristotle Univ. of Thessaloniki, Greece.

10.1990 - 09.1991: MSc in Medical Physics (Grade: Distinction), Faculty of Engineering and Physical Sciences, Department of Physics, Univ. of Surrey, UK. MSc thesis: "Preliminary work for Neutron Grazing Incidence Tomography. Image Digitization and Reconstruction".

07.1999 - 06.2005: PhD (Grade: Excellent), "Consideration of the physico-technical characteristics of parallel hole collimators during image acquisition with SPECT gamma camera". Faculty of Health Sciences, School of Medicine, Aristotle Univ. of Thessaloniki, Greece.

TEACHING ACTIVITIES

2018 - present: Undergraduate course: **Medical Physics**, Medical School and Dental School, Aristotle Univ. of Thessaloniki, Greece

2018 - present: Undergraduate course: **Introduction to Biomedical Engineering**, Medical School and Dental School, Aristotle Univ. of Thessaloniki, Greece

2021 - present: Undergraduate course: **Introduction to Radiation Therapy**, Medical School, Aristotle Univ. of Thessaloniki, Greece

2018 - present: Postgraduate course in Medical Physics: **Physics of Radiology**, Medical School, National and Kapodistrian Univ. of Athens, Greece

2018 - present: Postgraduate course in Health and Environmental Factors: **Radiation and the Environment**, Medical School, Aristotle Univ. of Thessaloniki, Greece

2020 - present: Postgraduate course in Research Methodology in Medicine and Health Sciences: **Advanced Cardiovascular Imaging**, Medical School, Aristotle Univ. of Thessaloniki, Greece

2021 - present: Postgraduate course in Biomedical Engineering: **Health technology design and clinical engineering**, School of Electrical and Computer Engineering, Aristotle Univ. of Thessaloniki, Greece

2021 - present: Postgraduate course in Biomedical Engineering: **Medical physics, imaging and image processing**, School of Electrical and Computer Engineering, Aristotle Univ. of Thessaloniki, Greece

2021 - present: Postgraduate course in Biomedical Imaging and Radiation Protection: **Introduction to Biomedical imaging (ionizing radiations)**, School of Medicine, Univ. of Thessaly, Greece

2021 - present: Postgraduate course in Biomedical Imaging and Radiation Protection: **Principles of Radiation Protection in Radiology**, School of Medicine, Univ. of Thessaly, Greece

2012 - present: Undergraduate course: **Diagnostic Imaging I**, Medical School, Aristotle Univ. of Thessaloniki, Greece

1996 - 2001: Medical Physics laboratory exercises, Medical School, Aristotle Univ. of Thessaloniki, Greece

1997 - present: Training of more than 35 medical physicists in Physics of Radiology, Physics of Nuclear Medicine and Radiation Protection, AHEPA Univ. Hospital, Greece

1997 - present: Numerous lessons to Nuclear Medicine physicians, technologists, radiographers and nurses in Physics of Nuclear Medicine and Radiation Protection, AHEPA Univ. Hospital, Greece

SUPERVISION OF POSTGRADUATE/UNDERGRADUATE STUDENTS

Chriskos Panteleimon, **PhD student**: “Analysis, fusion and visual analytics of multidimensional and multimodal data aiming at optimizing sleep-related pattern recognition and biomarker evaluation”, Aristotle Univ. of Thessaloniki (in progress).

Gilou Sotiria, **PhD student**: “Comparative study of electrical impedance spectroscopy models against verified dermatological diagnostic data”, Aristotle Univ. of Thessaloniki (in progress).

2018 - present: Supervision of **8 postgraduate students** for their Diploma Thesis, Aristotle Univ. of Thessaloniki, Greece

2001 - present: Co-supervision **13 postgraduate students** for their Diploma Thesis, Aristotle Univ. of Thessaloniki, Greece

2015 - present: Co-supervision **5 undergraduate students** for their Diploma Thesis, Aristotle Univ. of Thessaloniki, Greece

PUBLICATIONS

32 papers published in international peer-reviewed journals, indexed in Scopus, PubMed (most recent listed below)

2 papers published in Proceedings of international Congresses/Conferences

46 Abstracts published in international peer-reviewed journals, indexed in Scopus, PubMed

8 Abstracts published in Proceedings of international Congresses/Conferences

10 papers published in national scientific journals

1 paper published in Proceedings of national Congresses/Conferences

19 Abstracts published in Proceedings of national Congresses/Conferences

Citations (Scopus/Google Scholar): 364/597

h-index (Scopus/Google Scholar): 9/11

- A simplified method and a web-based application for the estimation of liquid and solid radioactive waste produced by in vitro nuclear medicine laboratories. **Papanastasiou E**, Tselepis D, Iakovou I. Applied Radiation and Isotopes 2022 Nov 9; 191: 110556.
- Could the Majority of the Greek and Cypriot Population Be Vitamin D Deficient? Souzana E. Xyda, Kalliopi Kotsa, Argyrios Doumas, **Emmanouil Papanastasiou**, Alexandros A. Garyfallos and George Samoutis. Nutrients 2022; 14: 3778.
- A novel quantitative method for assessing the therapeutic response to Tafamidis therapy in patients with cardiac TTR amyloidosis. A preliminary report. Argiris Doumas, Thomas Zegkos, Despoina Parcharidou, Thomas Gossios, Dimitris Ntelios, Sofia Chatzileontiadou, **Emmanouil Papanastasiou**, Evdoxia Hatjiharissi, Ioannis Iakovou, Georgios K Efthimiadis. Hellenic Journal of Nuclear Medicine May-Aug 2022; 25(2): 216-219.
- SPECT analysis and language profile in Greek speaking patients with subtypes of frontotemporal dementia. Dimitra Mamouli, Stavroula Stavrakaki, Ioannis Iakovou, Dimitrios Parisi, Dimitrios Karacostas, **Emmanouil Papanastasiou**, Panagiotis Ioannidis Hellenic Journal of Nuclear Medicine Jan-Apr 2022; 25(1): 43-56.
- Institutional Diagnostic Reference Levels and Peak Skin Doses in selected diagnostic and therapeutic interventional radiology procedures. **Emmanouil Papanastasiou**, Athanasios Protopsaltis, Stefanos Finitis, Adam Hatzidakis, Panos Prassopoulos, Anastasios Siountas. Physica Medica 2021; (89): 63-71.
- Applications of Convolutional Neural Networks in neurodegeneration and physiological aging. Panteleimon Chriskos, Christos A. Frantzidis, **Emmanouil Papanastasiou**, Panagiotis D. Bamidis. International Journal of Psychophysiology 2021; 159: 1–10.
- The consequences of COVID-19 pandemic in the routine of Nuclear Medicine Departments. **E. Papanastasiou**. Hellenic Journal of Nuclear Medicine 2020; 23(Suppl): 15-20.
- Absorbed dose estimation to cohabitants and co-travelers of patients treated with radioiodine for differentiated thyroid carcinoma. K. Hatzioannou, **E. Papanastasiou**, K. Badiavas, A. Zapros, I. Iakovou. Hellenic Journal of Nuclear Medicine 2020; 23(2): 173-179.
- Design of a Monte Carlo model based on dual-source computed tomography (DSCT) scanners for dose and image quality assessment using the Monte Carlo N-Particle (MCNP5) code. Stefania Chantzi, **Emmanouil**

Papanastasiou, Christina Athanasopoulou, Elisavet Molyvda-Athanasopoulou, Panagiotis Bamidis, Anastasios Siountas. Polish Journal of Medical Physics and Engineering 2020; 26(1): 11-20.

- Determination of the glomerular filtration rate in patients with type 2 diabetes: An assessment of the agreement between 51Cr-EDTA plasma clearance and 99mTc-DTPA plasma clearance, 99mTc-DTPA renography and plasma creatinine prediction equation. Moralidis E, **Papanastasiou E**, Didangelos T, Hilidis I, Siountas A, Arsos G. Diabetes Research and Clinical Practice, 161, Article number 108079, 2020.
- The effect of scatter correction and radius of rotation on semiquantitative measurements in SPECT 123I-FP-CIT imaging. A phantom study. **Papanastasiou E**, Katsiva C, Doumas A, Gerasimou G, Siountas A, Physica Medica 69, 120-125, 2020.
- A study on the optimization of the administered activity in myocardial perfusion SPECT imaging with Tc-99m according to body measurements. **Papanastasiou E**, Theodoridou E, Doumas A, Gerasimou G, Siountas A. Physica Medica 68, 69-74, 2019.
- A comparative assessment of cardiovascular autonomic reflex testing and cardiac 123I-metaiodobenzylguanidine imaging in patients with type 1 diabetes mellitus without complications or cardiovascular risk factors. Didangelos T., Moralidis E., Karlafti E., Tziomalos K, Margaritidis C, Kontoninas Z, Stergiou I, Boulbou M, Papagianni M, **Papanastasiou E**, Hatzitolios AI. International Journal of Endocrinology, art. no. 5607208, 2018.
- The effect of scatter correction on planar and tomographic semiquantitative 123I cardiac imaging. A phantom study. **Papanastasiou E**, Moralidis E, Siountas A. Hellenic Journal of Nuclear Medicine 20(2), 154-159, 2017.

BOOKS, BOOK CHAPTERS, STUDENT NOTES

- Contribution to the translation of the book: Suzanne Amador Kane, Boris A. Gelman: «Introduction to Physics in Modern Medicine» 3rd edition, CRC Press, Boca Raton, 2020.
- Laboratory Exercises in Medical Physics, Notes for the Students, Medical School, Aristotle Univ. of Thessaloniki, 2021
- Book chapter: “Measurement errors and counting statistics” in F. Grammaticos and contributors: Clinical and laboratory Nuclear Medicine in 20 medical specialties, 2014.

MEMBERSHIPS & REVIEWING ACTIVITIES

2022: Board member of the Hellenic Association of Medical Physicists

2018 – present: Member of the European Association of Nuclear Medicine

2018 – present: Member of the Hellenic Society of Biomedical Engineering

1995 – present: Member of the Hellenic Association of Medical Physicists

2018 – present: Reviewer for 8 scientific journals including, Medical Physics, European Journal of Nuclear Medicine and Molecular Imaging, Radiation Protection Dosimetry, Health Informatics, Health Technology Letters

CONFERENCES/WORKSHOPS/SEMINARS etc.

Member of the Organizing/Scientific/Award Committee in 10 Conferences, Seminars, etc.

Chair/Moderator in 8 Conference sessions, Round Tables, etc.

Invited Lectures in 19 Conferences/Workshops/Educational Seminars.

Attended more than 65 National and International Conferences/Workshops/Educational Seminars.

RESEARCH GRANTS

Project Title	Funding source	Period	Role
Analysis, fusion and visual analytics of multidimensional and multimodal data aiming at optimising sleep-related pattern recognition and biomarker evaluation	H.F.R.I.	8.10.2019-22.10.2022	Supervisor of the PhD candidate who earned the H.F.R.I. scholarship